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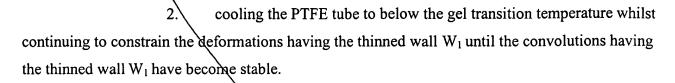
2. A PTFE tube as claimed in claim 1 wherein the improved resistance to permeation by comparison with the non-convoluted tube is greater than 10%.

- 1 3. (Amended) A PTFE tube as claimed in [any preceding] claim 1 wherein the improved resistance to permeation by comparison with the non-convoluted tube is greater than 20%.
  - 4. (Amended) A PTFE tube as claimed in [any preceding] claim 1 wherein the improved resistance to permeation by comparison with the non-convoluted tube is greater than 30%.
  - 5. (Amended) A PTFE tube as claimed in [any preceding] claim 1 wherein the improved resistance to permeation by comparison with the non-convoluted tube is greater than 60%.
  - 6. (Amended) A PTFE tube as claimed in [any preceding] claim 1 having a smooth internal bore.
  - 7. (Amended) A PTFE tube as claimed in [any preceding] claim  $\underline{1}$ , which tube is obtained from a non-convoluted tube having an original wall thickness  $W_0$  and an internal diameter ID by a process comprising:
  - 1. subjecting the PTFE tube to a deformation force at a temperature at or above the gel transition temperature of PTFE to produce constrained convolutions having a thinned wall W<sub>1</sub>; and
  - 2. cooling the PTFE tube to below the gel transition temperature whilst continuing to constrain the deformations having the thinned wall  $W_1$  until the convolutions having the thinned wall  $W_1$  have become stable.
- 8. (Amended) A PTFE tube as claimed in [any preceding] claim 1, which on heating to above its gel transition temperature without a restraining force in place returns to within 20% of the tubes original wall thickness W<sub>0</sub> but will not do so below the gel transition temperature.
- 9. A method of producing a PTFE tube comprising external roots and peaks from a non-convoluted tube having an original wall thickness W<sub>0</sub> comprising:
- subjecting the PTFE tube to a deformation force at a temperature at or above the gel transition temperature of PTFE to produce constrained convolutions having a thinned wall W<sub>1</sub>; and



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- 10. A method of producing a PTFE tube as claimed in claim 9, wherein the tube is placed on a mandrel and a helical tool comprising a leading end and a following end is rotated relative to the mandrel at a speed such that the leading end applies a deformation force at above the gel transition temperature and the following end applies a restraining force until the temperature has dropped below the gel transition temperature and the convolutions have become stable.
- 11. A method as claimed in claim 10 wherein the mandrel is a plane cylindrical mandrel.
- 12. (Amended) A method as claimed in [claims] claim 10 [or 11] wherein the following end of the helical tool is maintained at a temperature below the gel transition temperature.
- 13. (Amended) A method as claimed in [any of claims 9 to 12] claim 9 wherein W<sub>1</sub> is less than 25% of W<sub>0</sub>.
  - 14. A method as claimed in claim 13 wherein W<sub>1</sub> is about 20% of W<sub>0</sub>.
- 15. (Amended) A hose assembly comprising a PTFE tube as claimed in [any of claims 1 to 8] claim 1, a braid and one or more end fittings.
- 16. (Amended) Use of a PTFE tube as claimed in [any of claims 1 to 8] claim 1 in a hose assembly for the purpose of improving the resistance to permeation of said hose assembly.
- 17. (Amended) Use of a PTFE tube as claimed in [any of claims 1 to 8] claim 1 for the manufacture of a hose assembly intended to have improved resistance to permeation.
  - (Amended) A method comprising passing a fluid through a PTFE tube or hose assembly under a pressure greater than atmospheric pressure characterized in that the fluid is passed through a PTFE tube as claimed in [any of claims 1 to 8] claim 1 or the hose assembly as claimed in claim 15.



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